

# Amateur Radio Voice Operating Guidelines



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## Overview

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### **Purpose**

This Course Covers Yavapai County ARES/RACES (YCA/R) Policy and Procedures for Voice Operations.

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### **Objectives**

At the end of this course you will be able to:

- Define a Yavapai County ARES/RACES (YCA/R) net
- Demonstrate a working knowledge of a Directed Net protocol and use of tactical call signs
- Demonstrate correct use of international phonetic alphabet
- Demonstrate a working knowledge of YCA/R frequency usage
- Demonstrate ability to properly log traffic received over a net

# Introduction

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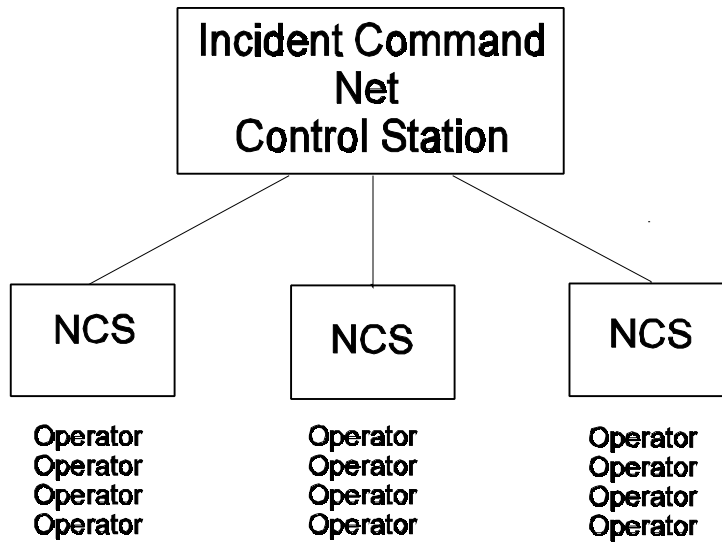
## Operational Organization

The organization of all ARES/RACES nets shall be according to the Incident Command System (ICS) model.

The objective is to limit the number of responsibilities being handled by, and the number of resources reporting directly to, an individual. Based on experience, the number is thought to range from three to seven, with five being considered an optimum number. In other words, one manager should have no more than seven people working under him/her at any given time.

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## ICS Model



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## YCA/R Net

Any amateur net activated by the request of the Yavapai County ARES/RACES District Emergency Coordinator (DEC), an Emergency Coordinator (EC), an Assistant Emergency Coordinator (AEC), or any member delegated to do so.

# Net Activation

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## Activation Responsibility

- The DEC, or anyone designated by the DEC, activates in response to a request from a proper authority.
  - The person in charge may appoint any YCA/R member to be Net Control Station (NCS) for a net.
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## Reason for Activation

- Upon net activation, the NCS will:
  - State the reason for activation
  - Proceed with check-ins
- 

## Call Out

Call out will be conducted using the ARES/RACES Telephone Trees

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## Check-ins

Check-in may be done by the NCS's preferred method such as by role call or call sign suffix group. The following items will be logged by the NCS for a tactical net:

- Date and time of check-in
- Call sign

For a resource net, the following additional information will be logged:

- Location
    - at home
    - mobile
    - part of town
    - etc.
    - (Locations must be updated periodically for mobile stations)
  - Availability
- 

## Non Members

- All amateurs are welcome to participate in YCA/R weekly net.
- Non-members are not allowed to check into the resource net.
- All participants will adhere to these guidelines.

# Net Etiquette

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## Basics of Net Etiquette

- These items are essential elements of good net etiquette. They will facilitate accurate and timely communications if practiced.
- Listen
- Be brief
- Use plain English
- Watch your word choice
- No victim's names
- Standard ITU phonetics
- Always check out before leaving frequency

## Tactical Call Signs

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### Use of Tactical Call Signs

- The NCS may assign tactical call signs during an event.
- Tactical call signs:
  - Facilitate communications by indicating what function a person is serving
  - Avoid having to remember that N5RO is Jim Clark assigned to Fire Station One
  - Are assigned to a location/position
  - Stay with the position, not the operator
  - Will be representative of the position, such as Shelter 1, Shelter 2, etc. assigned to shelters.
- FCC rules regarding proper ID must be followed.
- Make initial contact with tactical call sign
- Use FCC call sign every 10 minutes during an exchange and at the end of the exchange

# Tactical Radio Net

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**Definition** A Tactical Radio Net consists of several stations on one radio channel, following organized procedures, and directed by a Net Control Station.

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**Types**

- There are two types of nets:
- Directed Net
- Open Net

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**Directed Net** Stations must get permission before using the net. Address all calls to the NCS.

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**Open Net** NCS permits net stations to call one another. NCS intervenes only to straighten out confusion. Casual conversation on the frequency may be allowed.

## Traffic

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**Directed Nets** All YCA/R nets are directed nets. The major characteristics of a directed net are:

- No traffic is passed without the consent of the NCS
- Required to allow priority traffic to flow quickly
- Only the ITU (International Telecommunications Union) recommended phonetics will be used

# Protocol

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## **Contacting NCS**

When contacting NCS, the only information that needs to be, and should be, transmitted is:

- Tactical call sign of calling station
  - Brief description of traffic (optional, when necessary)
- 

## **Contacting NCS Examples**

Normal method of contact - there is no need to say 'NCS' or 'this is':

- KB7CBK
- EOC
- Shelter 1

In some situations, a station might legitimately indicate he/she has information/traffic, often when the NCS is in discussion with another station regarding an item the station has information about:

- AB7NK with info
  - KV8TD with status
- 

## **NCS Acknowledgment**

The NCS will acknowledge with either:

- The station's call sign
- Or
- The station's call sign and a request to stand by
- 

## **NCS Acknowledgment Examples**

- KC7CBK
- EOC
- Shelter 1
- AB7NK

After acknowledgment by the NCS, the station will pass the traffic to the NCS.

When the NCS is not ready or able to receive traffic at the time of contact, the NCS will acknowledge the station and ask him/her to stand by.

- KV8TD, stand by

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**Traffic for Another Operator**

When you have traffic for another operator on your net and need to contact that operator directly, you **must** obtain permission from the NCS.

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**NCS Acknowledgment Examples**

- **Shelter 1:** Shelter 1 with traffic for Shelter 2
  - **NCS:** Shelter 2 can you copy Shelter 1?
  - **Shelter 2:** Shelter 2, affirmative
  - **NCS:** Shelter 1, go ahead with your traffic
  - Alternatively, NCS may ask Shelter 1 to call Shelter 2 directly to establish contact
  - NCS may request Shelter 1 and Shelter 2 go to another frequency to pass the traffic, depending on the current situation
  - Be sure to use your FCC call sign every 10 minutes during an exchange and at the end of the exchange with any station
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**Destination Station Cannot Copy**

If destination station cannot copy directly, NCS will:

- Copy traffic
  - Acknowledge traffic
  - Pass it to destination station
  - Wait for acknowledgment of message
  - Log traffic
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**Traffic Relayed by NCS**

- If the traffic is relayed by the NCS, a verbatim log should be kept. The log will contain as a minimum:
    - Date and time
    - Calling station
    - Destination station
    - Message content
- 

**Acknowledgment**

Traffic will be acknowledged by receiving station.

- Message received, AB7NK

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**Precedence** With the new 213 ICS message form, no precedence will be assigned to any message.

Messages will be passed in order received unless otherwise directed.

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**Control Operators**

A control operator may allow someone else to use the radio for long and/or involved messages.

- Control operator must place the call, ID as required and terminate the call
  - Control operator must maintain proximity to the radio to physically take control of it if necessary
  - Control operator is responsible for proper operation and message content
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**ICS 213 Message Form**

Information on how to use the 213 ICS message form is contained in the *Message Handling* course.

## Winding Up

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**Two Functions**

There are two major functions involved in winding up a net operation:

1. Check-Outs
  2. Net Close
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**Check-outs**

Each station **must** check out before leaving the frequency for any reason  
The NCS must log the following information upon check-out:

- date and time of check-out
  - call sign
- 

**Net Close**

NCS **must** report to the YCA/R Incident NCS the call signs of any station failing to check out.

These stations will be followed up to verify their well-being.

NCS must check out of the Incident Command Net before ceasing operations, but not before his/her own net has been closed.

# Frequency Usage

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**Frequency List** All frequencies in the *YCA/R FM Voice Frequency List*, as well as others chosen by the DEC, may be used by nets, with the exception of Command frequencies.

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**Frequency Groups** There are four groups of YCA/R frequencies

1. Command
2. Resource
3. Tactical
4. Emergency

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**Command Frequencies**

- Frequencies for the exclusive use of the DEC, or designate, and EOC Operators for coordination of the various nets
- Normal traffic on these frequencies concerns allocation of available resources to the tasks at hand, **not** event-related traffic

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**Resource Frequencies**

Monitored whenever YCA/R is active.

No tactical operations.

Provide temporary coordination point for unassigned resources.

NCS will advise of current situation status and know of any current needs for your service.

Some units may be asked to check in at a later time to provide round-the-clock coverage if necessary.

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**Tactical Frequencies**

Used for the "real work".

Include club repeaters, emergency use frequencies and any simplex frequencies.

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**Emergency  
Frequencies**

Frequencies (repeaters) belonging to individuals not having a prior agreement with the YCA/R.

Repeater trustees have the final say -- don't abuse the privilege.

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**Frequency  
Reassignment**

In the event of disaster operations, NCSs may assign field personnel and frequencies to best meet the needs at hand.

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**Repeater  
Loss  
Fallback  
Plan**

If a repeater goes out of service during an emergency, switch to simplex on the repeater output frequency.

If you are unable to maintain contact, continue to monitor the frequency -- an alternate will be announced.

If you receive no alternate and cannot maintain contact, switch to the current Resource Net frequency.

As a last resort, check in to a net on another repeater and ask for the current Resource Net frequency.

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**Net  
Structure**

NCSs will structure all YCA/R nets in keeping with the principles of IMS (Incident Management System).

## ITU Recommended Phonetics

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**ITU  
Recommend  
ed Phonetics  
will be used**

<b>A</b> Alpha	<b>N</b> November
<b>B</b> Bravo	<b>O</b> Oscar
<b>C</b> Charlie	<b>P</b> Papa
<b>D</b> Delta	<b>Q</b> Quebec
<b>E</b> Echo	<b>R</b> Romeo
<b>F</b> Foxtrot	<b>S</b> Sierra
<b>G</b> Golf	<b>T</b> Tango
<b>H</b> Hotel	<b>U</b> Uniform
<b>I</b> India	<b>V</b> Victor
<b>J</b> Juliet	<b>W</b> Whiskey
<b>K</b> Kilo	<b>X</b> X-Ray
<b>L</b> Lima	<b>Y</b> Yankee
<b>M</b> Mike	<b>Z</b> Zulu

## ARES/RACES Frequency List

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### Two Lists

1. [YAVAPAI COUNTY ARES/RACES FREQUENCY PLAN \(Preferred\)](#)
2. [YAVAPAI COUNTY ARES/RACES FREQUENCY PLAN \(Alternate\)](#)

Refer to Handout for frequency lists.

Frequency lists are available on the 'Members Only' portion of the ARES/RACES Web site. Contact an ARES/RACES staff member for login and password to the Members Only portion of the Web site.

The Web site is: <http://www.k7yca.org/>